41842
S/205/62/002/004/001/014
I015/I215

27.1220

AUTHOR: Trincher, K.S., and Mikhaylova, A.A.

TITLE: The dielectric structure of liver cells and the effects of radiation and cysteine

PERIODICAL: Radiobiologiya, v.2, no.4, 1962, 523-529

TEXT: Electron-microscopic studies reveal the extremely heterogeneous structure of cells. This can be shown physiologically, by measuring electrical parameters in the presence of an external electrical field. The measurement of the electrical resistance in the liver tissue of rats was carried out under a series of conditions: after administration of cysteine - a radioprotective agent which brings about reversible changes in the measured parameters; after irradiation of the animals with a lethal dose which causes irreversible changes in the measured parameter; and after the administration of cysteine together with subsequent irradiation. It was found that the dielectric structure of the liver cell corresponds to the model of a dielectric dipole: in the absence of any external electric field, an electrical equilibrium is reached, the charges being mutually neutralized, but by inducing an external electric field the whole cell space becomes charged as a result of the

Card 1/2

S/205/62/002/004/001/014
I015/I215

The dielectric structure of...

rotating dipole molecules. Radiation brings about a degradation of the dielectric structure of the liver cell, whereas cysteine increases the dielectric properties of the liver cell, due to partial immobilisation of the dipole molecules. There are 4 figures.

ASSOCIATION: Institut biologicheskoy fiziki AN SSSR(Institute of Biophysics,AS USSR) Moscow

SUBMITTED: April 16, 1962

Card 2/2

MIKHAYLOVA, A.A.; MIKHAYLOV, L.M.; POPOV, A.S.; SEKAMOVA, Ye.N.

γ irradiation of cell cultures of mammals in vitro. Radiobiologiia 5 no.4:627-628 '65. (MIRA 18:9)

L 10260-67 EWT(1)/EWT(m) JK/GD

ACC NR: AT6029627 SOURCE CODE: UR/0000/66/000/000/0135/0144

AUTHOR: Leonov, B. V.; Mikhaylova, A. A.

ORG: none

TITLE: The tissue culture method in radiobiological investigations

SOURCE: Voprosy obshchey radiobiologii (Problems of general radiobiology). Moscow, Atomizdat, 1966, 135-144

TOPIC TAGS: radiobiology, tissue culture, radiation biologic effect

ABSTRACT: The article is based on a literature survey and presents data on tissue culture methods in radiobiological studies. These materials indicate that tissue cultures are good models for studying various aspects of radiation biologic effects: effect of irradiation dose size and rate on the degree of radiation injury, biologic radiation action with different ionization density, restoration processes of irradiated cells and problems of radioprotection. Growth of tissue cultures in the form of a layer or suspension makes it possible to conduct physicochemical and histological investigations of cells and investigations of protein, lipid and carbohydrate metabolism. Experimental data based on tissue culture investigations concur with the present position of radiobiology and bring us closer to uncovering the mechanism of radiation biologic effects. Orig. art. has: 1 table.

SUB CODE: 06/ SUBM DATE: 23Apr66/ ORIG REF: 016/ OTH REF: 056

Card 1/1

PROKOP'YEVA, M.S.; PILYUSHENOK, S.V.; NIKOLAYEVA, R.I.; CHECHENKOVA, M.V.; MIKHAYLOVA, A.A.; STRELKOVA, A.V.; LOPUKHA, N.Ye; KOZLOV, F.N., red.; VOINOV, K.F., red.; BABESHKINA, N., tekhn. red.

[Economy of Pskov Province; statistical collection] Narodnoe khoziaistvo Pskovskoi oblasti; statisticheskii sbornik. Leningrad, Gosstatizdat, 1960. 175 p. (MIRA 14:6)

1. Pskov (Province) Statisticheskoye upravleniye.2. Rabotniki Statisticheskogo upravleniya Pskovskoy oblasti (for all except Kozlov, Voinov, Babeshkina). 3. Nachal'nik Statisticheskogo upravleniya Pskovskoy oblasti (for Kozlov). 4. Zamestitel' nachal'nika Statisticheskogo upravleniya Pskovskoy oblasti (for Voinov)
(Pskov Province—Statistics)

KISILENKO, A.A.; SALEPOVA, A.I.; SMIRNOVA, A.I.; SYRTSOVA, Ye.M.; MIKHAYLOVA, A.D.; GUK, Yu.I.; NIKOLAYEVA, Z.A.; AYZENBERG, M.M.; MIKHAYLOVA, K.L.; USHAKOVA, T.V., red.

[Agroclimatological manual for Stalino Province] Agroklimaticheskii spravochnik po Stalinskoi oblasti. Leningrad, Gidrometeoizdat, 1959. 101 p. (MIRA 17:8)

1. Ukraine. Upravleniye gidrometeorologicheskoy sluzhby.
2. Nachal'nik Otdela agrometeorologii Kiyevskoy gidrometeorologicheskoy observatorii (for Salepova).

SIMONOV, Ya.P.; SALEPOVA, A.I.; SMIRNOVA, A.I.; SYRTSOVA, Ye.M.; MIKHAYLOVA, A.D.; YEFIMOVA, K.A.; MOROZ, V.F.; GUK, Yu.I.; NIKOLAYEVA, Z.A.; AYZENBERG, M.M.; MIKHAYLOVA, K.L.; ROGOVSKAYA, Ye.G., red.; VOLKOV, N.V., tekhn.red.

[Agroclimatic reference book on Nikolayev Province] Agroklimaticheskii spravochnik po Nikolaevskoi oblasti. Leningrad, Gidrometeor.izd-vo, 1959. 103 p. (MIRA 13:2)

1. Kiyev. Gidrometeorologicheskaya observatoriya. 2. Nachal'nik otdela agrometeorologii Kiyevskoy gidrometeorologicheskoy observatorii (for Salepova).
(Nikolayev Province--Crops and climate)

DEMIDENKO, T.D.; MIKHAYLOVA, A.D.

Effect of acupuncture on the course of severe recurrent radiculitis. Vop.psikh.i nevr. no.7:261-267 '61. (MIRA 15:8)

1. Iz laboratorii igloterapii (nauchnyy rukovoditel' prof. E.D. Tykochinskaya) Nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni V.M.Bekhtereva (dir. chlen-korrespondent Akademii pedagogicheskikh nauk prof. V.N.Myasishchev).
(ACUPUNCTURE) (NERVES, SPINAL--DISEASES)

S/081/62/000/010/025/085
B138/B101

AUTHORS: Vinogradov, V. A., Arskiy, Yu. M., Mikhaylova, A. F.

TITLE: Geochemistry of the rare earths in North Verkhoyansk region

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1962, 102, abstract 10G13 (Inform. byul. In-ta geol. Arktiki, no. 22, 1960, 21-29)

TEXT: The article gives the results of mineralogical and rough spectral analyses of more than 300 slimes and metallometric samples from current flocculent deposits in North Verkhoyansk region. It was established that La, Ce and Y occur in the sedimentary rocks of the upper Paleozoic, predominantly the Tiksi series, in the form of fine sandy aggregates of the heavy fraction. In the friable deposits they exist in the composition of the electromagnetic fraction of the slime, to the amount of 5 - 10 % in brecciated argillites and silt stones. The usual concentration of La and Ce in rare earth aggregates is 10 %, and that of Y = 0.3 - 1 %. It is suggested that the dominant process in the concentration of rare earth elements was their adsorption by pelite particles during the late Paleozoic sedimentation. [Abstracter's note: Complete translation.]

Card 1/1

L 61510-65 EWT(d)/EWP(w)/EWT(m)/EWP(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWP(1) Pf-4 MJW/JD

ACCESSION NR: AP5012501 UR/0032/65/031/005/0606/0608
620.178.2

30
29
B
16

AUTHORS: Stepanov, G. A.; Mikhaylova, A. F.

TITLE: Influence of specimen thickness on the region of brittle-ductile failure

SOURCE: Zavodskaya laboratoriya, v. 31, no. 5, 1965, 606-608

TOPIC TAGS: impact strength, metal property, ductile fracture, brittle fracture/MK 30 test apparatus, MSt 3kp steel

ABSTRACT: To determine the effects of specimen thickness in impact tests, single specimens of 2-, 3.3-, 5-, and 10-mm thickness and composite samples of 10-mm thickness (five 2 mm, three 3.3 mm or two 5 mm specimens fastened together) made of steel MSt. 3kp (σ_B = 46 kg/mm^2, σ_T = 23.5 kg/mm^2, δ = 34%, ψ = 65%) were tested in an MK-30 apparatus over a temperature range of -80 to 80C. It was found that impact strength-temperature curves are displaced towards lower temperatures as the sample thickness is decreased (a_n = 5 kg.m/cm^2 at -60, -40, -20 and 0C for 2-, 3.3-, 5-, and 10-mm thick samples respectively). The ductile-brittle transition curves were also found displaced towards lower temperatures with

Card 1/3

L 61510-65

ACCESSION NR: AP5012501

decreased specimen thickness (η = 50% ductile fracture at -40, -10, 10 and 30C for 2-, 3.3-, 5-, and 10 mm thick samples respectively). Composite specimens were found to act similarly to single samples. In the region of brittle-ductile failure the impact strength could be described adequately by

$$a_n = C - k \log b,$$

where (b = specimen thickness, C and k = constants). This is shown in Fig. 1 on the Enclosure. Orig. art. has: 3 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya (All-Union Scientific Research Institute for Oxygen Machinery Construction)

SUBMITTED: 00	ENCL: 01	SUB CODE: MM
NO REF SOV: 001	OTHER: 001	

Card 2/3

L 61510-65

ACCESSION NR: AP5012501 ENCLOSURE: 01

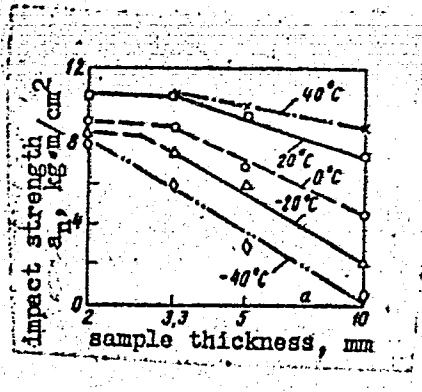

Fig. 1.
Impact strength as a function of specimen thickness

dm

Card 3/3

L 35927-66 EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/HM

ACC NR: AP6015107 (A) SOURCE CODE: UR/0135/66/000/005/0031/0033

AUTHOR: Stepanov, G. A. (Candidate of technical sciences); Mikhaylova, A. F. (Engineer)

ORG: VNIIKIMASh

TITLE: The use of 08kp steel in the manufacture of welded thin walled tanks for use at low temperatures

SOURCE: Svarochnoye proizvodstvo, no. 5, 1966, 31-33

TOPIC TAGS: arc welding, impact test, impact strength / 08kp steel

ABSTRACT: The results of tests for impact strength, and tests carried out on thin-walled tanks made of 08kp steel are presented. The tanks are used for transporting and storing liquified propane and butane at temperatures down to -60°C. Tests were made using steel 3-4 mm thick. The chemical composition and properties of the steel are in conformity with GOST 1050-61. Grain size was 6-8 on the standard scale. The maximum content of *S* and *P* was 0.04% and 0.22%, respectively. Specimens were pickled 20-25 minutes at -80°C in nitrogen-cooled acetone and impact tested (test results are shown in tabular form). The welds were made with a submerged arc (AN-348A head) and the electrode diameter was 2 mm; the feed rate was 132-143 m/hr and the welding speed was 32-34 m/hr. It was found that hot rolled 08kp steel 3-4 mm thick exhibited a high

Card 1/2 UDC: 621.791.011:62-464:669-974

L 35927-66

ACC NR: AP6015107

degree of impact strength in the temperature range between 20°C and -60°C (not less than 5 kg/cm^2) and that it retained sufficient plasticity. The weld joints' impact strength was good for all temperatures from 20 to -60°C. It was concluded that 08kp steel of the aforementioned composition can be recommended for the manufacture of thin-walled tanks for use at low temperatures down to -60°. Orig. art. has: 2 tables, 4 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 003

Card 2/2

L 16615-63

S/075/63/018/004/004/015

45

AUTHOR: Popov, D. K. and Mikhaylova, A. I.

TITLE: The direct determination of calcium in plants, soils and milk with use of a flame photometer

PERIODICAL: Zhurnal analiticheskoy khimii, v. 18, no. 4, April 1963, 440-443

TEXT: The authors demonstrate experimentally that there is no lessening of the intensity of radiation from calcium on account of quenchers (aluminum, sulfate and phosphate ions), provided 8-hydroxyquinoline is present. On this basis they suggest a method for the direct determination of calcium in soils, milk and plants, the removal of quenchers being unnecessary. There are 2 figures and 2 tables. The most important English-language reference reads as follows: Debras-Guedon, J., Voinovitch, J., Compt. rend. Acad. Sci., 248, 3421 (1959).

ASSOCIATION: Leningradskiy nauchno-issledovatel'skiy insitut radiatsionnoy gigeny (Leningrad Scientific Research Institute for Radiation Hygiene)

SUBMITTED: July 21, 1962

Card 1/

MIKHAYLOVA, A.K.

4

The mechanism of the condensation reaction of acetylene with ketones. A. D. Petrov, A. K. Mikhailova, and A. Ye. Mitrofanova. *Doklady Akad. Nauk S.S.S.R.* 91, 857–60 (1953).—A review of the alkali-catalyzed addn. of C_2H_2 with R_2CO is made (6 references). Pure KOH does not produce this reaction; traces of Fe are essential. Hence the condensation may proceed by dissocn. of C_2H_2, as it does with catalysts such as $CoCl_2$ or Cu_2Cl_2. Alternatively, a chain reaction is possible, with reaction of $Fe(OH)_3$ yielding $HOFeC{:}CFeOH$ which with the ketone yields the corresponding adduct, and this is then hydrolyzed by added H_2O with liberation of $Fe(OH)_3$. Ketones which do not enolize [e.g. $(Me_3C)_2CO$] do not undergo this reaction. The effect of Fe (added as K_2FeO_4) was tested in reactions with Me_2CO, Pr_2CO, and iso-Pr_2CO. The presence of 0.04–0.1% Fe gave the best yields. Further, $(Me_3C)_2CO$ gave only traces of the corresponding glycol when the reaction was catalyzed by KOH; however when $(ClCMgBr)_2$, prepd. from 2 moles EtMgBr and C_2H_2, was treated with 2 g. Cu_2Cl_2, then with 30 g. ketone in Et_2O, and the mixt. allowed to stand overnight, freed of the solvent, and heated on a steam bath 5 hrs., the usual aq. treatment gave 15.1 g. *$HC{:}CC(OH)(CMe_3)_2$*, b_{11} 97–8°, n^{20}_D 1.4583, d_4 0.8852, and 5.1 g. *corresponding glycol*, b_5 140–5°, m. 93.5–4.0°. Thus the use of a more ionizable C_2H_2 complex also yields the products expected from the usual Favorskii reaction.

G. M. Kosolapoff

MIKHAYLOVA, A.M., inzh.; NEMIROVSKIY, E.I., nauchnyy red.; LOGINOVA, R.A., red.; ALEKSEYEVA, T.V., tekhn. red.

[Machines for the packing of soils, road beds and pavements] Mashiny dlia uplotneniia gruntov, dorozhnykh osnovanii i pokrytii; katalog-spravochnik. Moskva, 1963. 87 p. (MIRA 16:6)

1. TSentral'nyy institut nauchno-tekhnicheskoy informatsii po avtomatizatsii i mashinostroyeniyu.

(Road machinery)

MIKHAYLOVA, A.M., inzh.; KEZIN, G.V., inzh.; TUROVA, Z.I., red.; KOGAN, F.L., tekhn.red.

[Bulldozers; a catalog-handbook] Bul'dozery; katalog-spravochnik. Moskva, TsINTIAM, 1963. 94 p. (MIRA 16:6)

1. TSentral'nyy institut nauchno-tekhnicheskoy informatsii po avtomatizatsii i mashinostroyeniya.
(Bulldozers)

USSR / General and Special Zoology. Insects. Insect and Mite Pests. P

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54401.

Author : Krasikova, N. S.; Mikhaylova, A. M.
Inst : Tomsk. Univ.
Title : The Larch Gall-Midge in the Environs of Tomsk.

Orig Pub: Tr. Tomskogo un-ta, 1956, 142, 209-214.

Abstract: Dasyneura laricis is widespread in Siberia. It damages chiefly the stubby shoots bearing the main mass of the needles. The gall-gnats appear simultaneously with the bursting of the needles and without additional feeding lay their eggs, one at a time, in the lower part of the shoot. Instead of the shoot, it is the gall which develops subsequently, and by the following year the shoot will have completely withered. The egg stage lasts 8-9 days.

Card 1/2

FAYERMAN, M.N.; MIKHAYLOVA, A.M.; VASIL'YEVA, Z.P.

Diagnostic value of the tellurite test in faucial diphtheria. Zhur.mikrobiol.epid. i immun.,supplement for 1956:45 '57 (MIRA 11:3)

1. Iz kliniki detskikh infektsionnykh bolezney Gor'kovskogo meditsinskogo instituta imeni S.M.Kirova na baze detskoy infektsionnoy bol'nitsy No.8 i infektsionnoy bol'nitsy No.3.
(DIPHTHERIA) (TELLURIUM)

MIKHAYLOVA, A. M., Cand Med Sci -- (diss) "Research into the bio-electrical activity of the cerebral cortex in children with tubercular meningitis." Odessa, 1960. 14 pp; (Odessa State Medical Inst im N. I. Pirogov); 300 copies; price not given; (KL, 17-60, 171)

SKVORTSOV, V.V.; EYDINOVA, G.G.; LUPINA, M.I.; YAKUBOVA, G.R.; SINAY, A.Ya.; GOLUBEVA, T.V.; MIKHAYLOVA, A.M.; KRASNOVA, F.M.; KOBETSOVA, A.D.

Epidemiology of intestinal infections in children's institutions. Zhur. mikrobiol. epid. i immun. 32 no.6:47-51 Je '61. (MIRA 15:5)

1. Iz II Moskovskogo meditsinskogo instituta imeni Pirogova i sanitarno-epidemiologicheskoy stantsii Leninskogo rayona Moskvy.
(INTESTINES—DISEASES)

L 60138-65 EWG(v)/EWT(1)/FCC Pe-5/Pi-4 GW

ACCESSION NR: AT5014141 UR/2778/65/000/013/0003/0017

AUTHOR: Dashkevich, L. L.; Gol'berg, M. A.; Mikhaylova, A. M. 26 26 B+1

TITLE: The M-71 back-scattering nephelometric device for the measurement of nocturnal meteorological visibility

SOURCE: Leningrad. Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya. Trudy, no. 13, 1965, 3-17

TOPIC TAGS: visibility determination, nocturnal visibility, nephelometric instrument, back scattering nephelometer

ABSTRACT: After the Glavnoye upravleniye gidrometeorologicheskoy sluzhby (Main Hydrometeorologic Service) decided to utilize the M-53 polarization visibility measuring device (L. L. Dashkevich, Trudy NII GMP, no. 10, 1961) as the basic tool for visibility determinations, the need arose for the design and construction of an auxiliary device which would enable the M-53 to be used for visibility determinations at night when ordinary objects are not visible. After trying out a nephelometric device (M. A. Gol'berg, Trudy NII GMP, no. 10, 1961) with light scattering at a 135° angle, and another device using the direct determination of light transmission, the authors found a third nephelometric

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L 60438-65

ACCESSION NR: AT5014141

device (the M-71) which uses back scattering at 180° to be the most convenient. The article describes the operation and experimental tests of this simple device, which is capable of determining nocturnal visibility from 50 m to 50 km. Orig. art. has: 4 formulas, 7 figures, and 6 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya, Leningrad (Scientific Research Institute for Hydrometeorological Instrument Design)

SUBMITTED: 00	ENCL: 00	SUB CODE: ES	
NO REF SOV: 006	OTHER: 000		

Card 2/2

MIKHAYLOVA, A. N.

"Penicillin and its Application," Med. Sestra., No. 8, 1949. Med. Nurse, Moscow Municipal Hospital im. Solov'yev, Dept. Experimental Therapy of Psychoses, Inst. Psychiatry, Min. Pub. Health, -c1949-.

FILIPPOVA, N.B., inzh.: MIKHAYLOVA, A.N., doktor tekhn.nauk,prof.

Investigating the fractional composition and tanning properties of novolak and lignophenol resins obtained from shale phenols. Izv.vys.ucheb.zav.; tekh.leg.prom. no.4:76-79 '60. (MIRA 13:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut kozhevenno-obuvnoy promyshlennosti. Rekomendovana kafedroy tekhnologii iskusstvennykh volokon Kiyevskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Tanning materials) (Phenols)

MIKHAYLOVA, A.P., inzhener.

[redacted]

Finishing locknit fabrics on a tentering frame. Leg. prom. 16 no.7:36-39 Jl '56. (MLRA 9:10)

(Textile finishing)

VYATSKIN, B.Ya., inzhener; KUZNETSOV, S.A., inzhener; MIKHAYLOVA, A.P., inzhener.

AST-4 automatic synchronizer with fixed advance. Elek.sta.27 no.6:29-31 Je '56. (Electric controllers) (MLRA 9:9)

MIKHAYLOVA, A.P., inzhener.

Increasing the productivity of MT circular knitting machines.
Leg. prom. 17 no.5:23-25 My '57. (MLRA 10:6)
(Knitting machines)

MIKHAYLOVA, A.P., inzh.

Ways to reduce the shrinkage of knit goods. Tekst. prom. 21 no.1:32-36 Ja '61. (MIRA 14:3)
(Knit goods)

MIKHAYLOVA, A.P., inzh.

Technology of the manufacture of light-duty piled fabrics of uniform width for rubber footwear on MT machines. Nauch.-issl.trudy VNIITP no.4:147-159 '63. (MIRA 17:4)

MIKHAYLOVA, A.P., inzh., starshiy nauchnyy sotrudnik

Interdependence of the loop parameters of knit goods in wearing. Tekst.prom. 23 no.5:31-35 My '63. (MIRA 16:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut trikotazhnoy promyshlennosti.

(Knit goods--Testing)

MIKHAYLOVA, A.P., starshiy nauchnyy sotrudnik

Mechanical properties of tricot goods in the initial stage of stretching. Tekst. prom. 23 no.6:46-48 Je '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut trikotazhnoy promyshlennosti (VNIITP).
(Knit goods—Testing)

S/032/62/028/008/003/014
B107/B180

AUTHORS: Sychev, V. P., and Mikhaylova, A. S.

TITLE: Quantitative spectral analysis of Manganin microwire

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 8, 1962, 950

TEXT: A method was developed for determining manganese in concentrations of 6-12% and nickel from 1.5-6%. The glass insulation is removed by 40% hydrofluoric acid from a microwire 2-4 mm long which is then weighed and placed into a 2 mm-deep hollow in a carbon electrode coated with polystyrene. It is dissolved by drops of nitric acid (1:1) and covered with carbon powder. Standard specimens of manganin solutions are insected into the carbon electrode with a microburette. Better results are obtained with ash-free filters. (A. N. Prokop'yeva. Opyt prakticheskogo primeneniya emissionnogo spektral'nogo analiza v elektrovakuumnoy promyshlennosti, LDNTP (1959)), which are destroyed with a 1:4 solution of sulfuric acid in alcohol. An arc is used for analysis, a ДГ-2 (DG-2) generator, and the current in the primary circuit of the transformer is 5 a. The second electrode is copper, electrode spacing is 2 mm, slit width of the ИСП-28

Card 1/2

Quantitative spectral analysis ...

(ISP-28) spectrograph 0.02 mm, and exposure 4 min. The plates are developed in metol - hydroquinone in 75 sec. at 20°C. The lines were measured with an МФ-2 (MF-2) microphotometer. Calibration curves worked out for Mn 2949 - Cu 2492, Mn 2933 - Cu 2492, Ni 3050 - Cu 3338, and Ni 3050 - Cu 3063 line pairs were used to calculate the concentration. The errors in determination are ± 10% and ± 3% for Mn and Ni, respectively.

ASSOCIATION: Kishinevskiy gosudarstvennyy universitet (Kishinev State University). Moldavskiy nauchno-issledovatel'skiy institut elektrotekhnicheskoy promyshlennosti (Moldavian Scientific Research Institute of the Electrotechnical Industry)

L 44756-65

ACCESSION NR: AP5007246 S/0280/65/000/001/0021/0027

AUTHOR: Vorob'yev, N. N. (Leningrad); Kislitsyn, S. S. (Leningrad); Mikhaylova, A. S. (Leningrad) 4 B

TITLE: "Fatigue-rest" model [Reported at the 4th All-Union Mathematical Congress]

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1965, 21-27

TOPIC TAGS: fatigue rest model

ABSTRACT: The optimal behavior is mathematically considered of a model of a system whose productivity (or workability) decreases during the work periods and increases during the rest periods. It is shown that the optimal behavior covers: the quickest transition to the stationary regime, an indefinite period of maintaining this regime, and finishing the work under maximum-efficiency conditions. The "stationary regime" means such an alternation of the work and rest periods that the productivity remains constant. The optimal stationary regime corresponds to the maximum work done. Orig. art. has: 3 figures and 28 formulas.

Card 1/2 Submitted: 19 Dec 64

МИХАЙЛОВА А.Т.

MIKHAYLOVA, A.T.

"Tea fungus" infusion in the treatment of dysentery in children. (MIRA 10:12)
Pediatriia no.8:77-78 Ag '57.

1. Iz Detskoy klinicheskoy bol'nitsy No.1, Omska.
(DYSENTERY) (PHARMACOLOGY)

MIKHAYLOVA, A.V., red.; MARAKASOVA, L.P., tekhn.red.

[Not pasturing but feeding is the answer] Ne pasti, a kormit'. Moskva, Izd-vo "Sovetskaia Rossiia," 1961. 38 p. (MIRA 15:2)

(Forage)

MIKHAYLOVA, A.V., assistent

Age aspect of venous pressure in patients with certain diseases of the respiratory organs. Uch. zap. Stavr. gos. med. inst. 12:106-107 '63.

Characteristics of the course of chronic gastritis in elderly and senile people. Ibid.:108-109

1. Kurs propedevtiki vnutrennikh bolezney stomatologicheskogo fakul'teta (zav. dotsent A.Ye. Pil'shchikov) Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

MIKHAYLOVA, A.Ye.

Work in organizing collective farm children's institutions. Vop. okh. mat. i det. 7 no.3:77-80 Mr '62. (MIRA 15:5)

1. Zaveduyushchaya Rostovskim rayonnym otdelom zdravookhraneniya Yaroslavskoy oblasti.
(CHILDREN--INSTITUTIONAL CARE)

KUKHARKOVA, L.L., starshiy nauchnyy sotrudnik; LAVROVA, L.P., kand. tekhn. nauk; SOLOV'YEV, V.I., kand. khim. nauk; FREYDLIN, Ye.M., kand. veter. nauk; PEROVA, P.V., kand. veter. nauk; SADIKOVA, I.A., kand. biol. nauk; KRYLOVA, V.V., starshiy nauchnyy sotrudnik; BUSHKOVA, L.A., starshiy nauchnyy sotrudnik; RYNDINA, V.P., starshiy nauchnyy sotrudnik; TRUDOLYUBOVA, G.B., starshiy nauchnyy sotrudnik; KARGAL'TSEV, I.I., assistent; MIKHAYLOVA, A.Ya., mladshiy nauchnyy sotrudnik; KARPOVA, V.I., mladshiy nauchnyy sotrudnik; POLETAYEV, T.N., mladshiy nauchnyy sotrudnik; MERKULOVA, V.K., mladshiy nauchnyy sotrudnik

Directed use of microorganisms for the improvement of the quality of sausage products. Report No. 1. Trudy VNIIMP no.16: 64-75 '64. (MIRA 18:11)

1. Kafedra tekhnologii Moskovskogo tekhnologicheskogo instituta myasnoy i molochnoy promyshlennosti (for Kargal'tsev).

MIKHAYLOVA, B.G., kand.ekon.nauk

White Russian Women in industry before the revolution. Sbor.nauch rab.Bel.politekh.inst. no.52:54-82 '56. (MIRA 13:4)
(White Russia--Women-- Employment)

MIKHAYLOVA, B.M. (Moskva); CHERNOVOY, N.G. (Moskva)

Complex nature of organic compounds of alkali metals. Uch.zap.Kaz.un. 115 no.10:50 '55. (MLRA 10:5)

(Compounds, Complex)
(Alkali metal compounds)

Ye. P. BOYTSOVA, B. M. MIKHAYLOVA, N. K. OVECHKIN

"Geology of the Southwestern Section of the Turgay Downwarp and Its Possibilities in Bauxite Mining" p.378

Mineralogy and Origin of Bauxites, Moscow, Izd-vo AN SSSR (otd. geologo-geograf. nauk) 1958, 488pp.

This collection of articles by various authors on the mineralogy and geochemistyy of bauxites appeared as a result of 1955 conf. on the origin of bauxite (Chairman, Acad. N. M. Strakhov)

SHCHEGOLEVA, T.A.; SHELUDYAKOV, V.D.; MIKHAYLOVA, B.M.

Organoboron compounds. Part 151: Kinetics of the hydrolysis of boron cation complexes. Zhur. ob. khim. 35 no.6:1066-1073 Je '65. (MIRA 18:6)

Mikhaylova, L.A.

PHASE I BOOK EXPLOITATION SOV/3910

Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh reaktivov

Veshchestva vysokoy chistoty i reaktivy; sbornik statey (High Purity Substances and Reagents; Collection of Articles) Moscow, Goskhimizdat, 1959. 136 p. (Series: Its: Trudy, vyp. 23) Errata slip inserted. 1,700 copies printed.

Sponsoring Agency: USSR. Sovet Ministrov. Gosudarstvennyy komitet po khimii.

Ed.: Ya.V. Lyande; Tech. Ed.: Ye.G. Shpak; Editorial Board of Series: V.G. Brudz', V.M. Dzioмko, R.P. Lastovskiy (Resp. Ed.), A.M. Lukin, G.E. Malkiel', O.I. Mikhaylov, G.A. Pevtsov (Deputy Resp. Ed.), and I.G. Shafran.

PURPOSE: This book is intended for personnel of chemical research and industrial chemical laboratories.

COVERAGE: The book contains 36 articles by affiliates of the Scientific Research Institute for Chemical Reagents (IREA) treating methods which may be adopted by different branches of industry in producing, analyzing, and studying inorganic and organic substances of high purity. Figures, tables, and references accompany each article. No personalities are mentioned.

TABLE OF CONTENTS:

MIKHAYLOVA, D.N., inzh.

Projector for checking low-module cutters during machining.
Priborostroenie no.6:21 Je '61. (MIRA 14:6)
(Projectors)

S/181/62/004/006/046/051
B108/B138

AUTHORS: Mikhaylova, D. N., and Kasabov, I. D.

TITLE: Diffusion of phosphorus in silicon

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1671 - 1673

TEXT: In order to check Fick's second law, which describes the diffusion distribution in a substance, the authors studied the diffusion of P in Si at 1230°C. The Si specimens were p-type single crystals ground and etched in various agents. The phosphorus concentration was determined by measuring the conductivity. Fick's law is satisfied for surface concentrations of phosphorus less than 5.10^{18} cm^{-3}. Above this value, the departure of the experimental curves from the theoretical ones increases with increasing surface concentration. The diffusion coefficient found from the diffusion curves agrees with published data. It is concluded that the diffusion coefficient is dependent on the concentration of P in Si. There are 2 figures.

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S/181/62/004/006/046/051
B108/B138

Diffusion of phosphorus ...

ASSOCIATION: Institut fiziki Bolgarskoy Akademii nauk, Sofiya (Physics Institute of the Bulgarian Academy of Sciences, Sofiya)

SUBMITTED: February 14, 1962

Card 2/2

S/181/62/004/010/063/063
B102/B104

AUTHOR: Mikhaylova, D. N.

TITLE: Diffusive distribution of boron in silicon

PERIODICAL: Fizika tverdogo tela, v. 4, no. 10, 1962, 2992-2994

TEXT: The diffusive distribution of phosphorus in silicon, as studied by D. N. Mikhaylova and I. D. Kasabov (FTT, 4, 1671, 1962) showed a deviation from the normal distribution $\mathrm{erfc}(x/2\sqrt{Dt})$ when the P surface concentration exceeds $\sim 5\cdot10^{18}\,cm^{-3}$. Similar investigations were now carried out for B in Si. B in concentrations between $5\cdot10^{17}$ and $1\cdot10^{21}\,cm^{-3}$ was applied as a $K_2B_4O_7$ suspension or B_2O_3 solution onto n-type Si single crystals of 0.5-ohm·cm resistivity. Then the crystals were heated to 1200°C to accelerate diffusion. The B concentration in the depth of the crystals was determined by subsequent removal of layers of 1.5-2μ whose thickness was determined by weighing the crystal. Also

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Diffusive distribution of boron in ...

for boron diffusion at concentrations $\gtrsim 10^{19} cm^{-3}$ a deviation from $erfc(x/2\sqrt{Dt})$ was observed and the diffusion coefficient proved to be concentration-dependent. These deviations from theory are attributed to a field effect. There is 1 figure.

ASSOCIATION: Institut fiziki Bolgarskoy Akademii nauk, Sofiya
(Institute of Physics of Bulgarian Academy of Sciences, Sofia)

SUBMITTED: June 27, 1962

Card 2/2

MIKHAYLOVA, E.G.

81966
S/181/60/002/04/28/034
B002/B063

24.7700

AUTHORS: Matskevich, T. L., Mikhaylova, E. G.

TITLE: Secondary Electron Emission of Ice and Anthracene Films

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 4, pp. 709-715

TEXT: The secondary electron emission had hitherto been examined in more detail only for metals and ion crystals. For their investigation, the authors selected anthracene and ice as examples of crystals with covalent and hydrogen bonds. The samples were distilled in vacuo and melted in ampoules. In the measuring device (Fig. 1) the ampoules were broken up with a mechanism. The samples were heated with a filament winding, and formed a film on the molybdenum target, while the apparatus was cooled with liquid nitrogen. The measurements were made by the single-pulse method (Ref. 2). The time dependence of the coefficient of secondary electron emission σ and of the coefficient of inelastic reflection η was measured first (Fig. 2 for ice, Fig. 3 for anthracene). After about 20 sec the values for σ and η changed no longer. The dependence of σ and η on the primary electron energy was determined next; it was found to be between

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Secondary Electron Emission of Ice and Anthracene Films

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B002/B063

100 and 2500 ev. For anthracene η is between 0.15 and 0.10 and for ice between 0.20 and 0.10 (Fig. 4). For anthracene σ is between 1.3 and 0.7 and for ice between 2.3 and 1.2 (Fig. 5). For comparison, the curves for molybdenum are also included in the diagrams in each case. A compilation of the curves for polyethylene, polystyrene, anthracene, and carbon (Fig. 6) is indicative of a relationship between the carbon content of the compounds and σ. The work was carried out at L. N. Dobretsov's laboratory. The authors thank him for his supervision and assistance. There are 6 figures and 6 Soviet references.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR, Leningrad
(Physicotechnical Institute of the AS USSR, Leningrad)

SUBMITTED: July 6, 1959

Card 2/2

KISHKO, Ya.G. [Kishko, IA.H.]; PERVACHENKO, S.V.; NOSACH, L.N. [Nosach, L.M.]; MIKHAYLOVA, E.G. [Mykhailova, E.H.]; VANTSAK, N.P.

Study of adenoviruses of the types 3 and 5 in a tissue culture of cancer cells by the fluorescence method. Mikrobiol. zhur. 27 no.1: 5-10 '65. (MIRA 18:7)

1. Institut mikrobiologii i virusologii AN UkrSSR.

L 11250-63 EWT(1)/EWT(m)/BDS--AFFTC/AMD/ASD--RM/AR/K
ACCESSION NR: AP3001075 S/0205/63/003/003/0463/0466 57 56

AUTHOR: Mikhaylova, E. G.

TITLE: Distribution of S sup 35 between organs and tissues of rats with intra-abdominal administration of certain sulfur-labeled sulfur-bearing radioprotective preparations 19

SOURCE: Radiobiologiya, v. 3, no. 3, 1963, 463-466

TOPIC TAGS: S sup 35, distribution of radioprotective compounds, mercamine, aminoethylisotiuron, disulfide-5-mercaptopentilamine, ethylisotiuron

ABSTRACT: Earlier studies have shown the distribution of mercamine and aminoethylisotiuron in white rats using sulfur labeled preparations. This investigation compares the radioactive sulfur distribution of effective radioprotective compounds (mercamine and aminoethylisotiuron) with ineffective compounds (disulfide-5-mercaptopentilamine and ethylisotiuron) close in chemical structure. Experiments were conducted on male rats who were given preparations intraabdominally. Half were decapitated after 1 hr and the other half after 3 hrs. Radioactive sulfur S sup 35 of the aminodisulfide and mercaptoguanide preparations is not uniformly distributed in animal organisms. The greatest amount of the labeled preparations is found in

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radiosensitive tissues (marrow, spleen, intestine, liver, lungs) and excretary organs (kidneys). The least amount of S sup 35 is found in the blood, muscles, and brain. The ineffective labeled compounds do not differ in distribution from the effective ones but appear in lesser quantities. Orig. art. has: 2 figures.

ASSOCIATION: Voyenno-meditsinskaya akademiya im. S. M. Kirova, Leningrad (Military Medical Academy)

SUBMITTED:	23Jul62	DATE ACQD:	01Jul63	ENCL:	00
SUB CODE:	00	NO REF SOV:	005	OTHER:	009

ch/ww
Card 2/2

ACCESSION NR: AT4044495 S/0000/64/000/000/0187/0191

AUTHOR: Mozzhukhin, A. S.; Antipenko, Ye. N.; Makhalova, O. K., Mikhaylova, E.G., Pavlova, L. M., Tank, L. A.

TITLE: The effect of cystamine on the development of the regenerative processes after various doses and intensities of irradiation

SOURCE: Vosstanovitel'ny*ye protsessy* pri radiatsionny*kh porazheniyakh (Recovery from radiation injuries); sbornik statey. Moscow, Atomizdat, 1964, 187-191

TOPIC TAGS: radiation sickness, radioprotective agent, cystamine, hematopoiesis, leukopenia

ABSTRACT: Experiments on mice exposed to various doses of x-radiation at a constant intensity of 30 r/minute showed that cystamine (150mg/kg i.p. 10-15 minutes prior to irradiation) increases the survival of mice, enlarging the $LD_{50/30}$ by 300 r. The maximal effect was obtained at approximately 600 r, which is between the LD50 and LD_{100}. Analogous results were obtained with gamma irradiation at a constant dose of 900 r but various intensities. The protective effect of cystamine (400mg/kg p.o. 30 minutes before irradiation)

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ACCESSION NR: AT4044495

showed a maximum between 4 and 8 hours of irradiation. These data suggest that cystamine either strengthens the regenerative processes to varying degrees or at different rates in the different tissues and organs. Experiments with S^{35}-cystamine showed that it accumulates primarily in the radiosensitive organs, particularly in the intestines and hematopoietic system (bone marrow and spleen). Injection of cystamine (60 mg/kg i.v.) 10-15 minutes before irradiation of dogs (500 r) decreased the extent and duration of leukopenia as compared to controls. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 29Jan64 ENCL: 00 SUB CODE: LS

NO REF SOV: 002 OTHER: 005

Card 2/2

L 10424-67 EWT(m)

ACC NR: AT6031775 (A) SOURCE CODE: UR/2956/66/016/000/0095/0098

AUTHOR: Mozzhukhin, A. S.; Antipenko, Ye. N.; Mikhaylova, E. G. 30

ORG: none

TITLE: Significance of inhibiting chain radical processes in chemical prophylaxis of radiation injuries 11

SOURCE: Moskovskoye obshchestvo ispytateley prirody. Trudy. Otdel biologicheskiy, v. 16, 1966, Svobodnoradikal'nyye protsessy v biologicheskikh sistemakh (Processes of free radicals in biological systems), 95-98

TOPIC TAGS: mouse, phenol, antiradiation drug, radiation injury, radiation chemistry

ABSTRACT: If radiation injuries develop in an organism as a result of chain radical reactions as many authors suggest, then the development of these reactions may be inhibited by administering radioprotectors following irradiation as well as before. With screened phenols considered the most effective inhibitors of chain radical processes, the present study investigated the radioprotective effects of six ionol derivatives administered after irradiation. In experiments on white mice X-irradiated with single 400, 550 and 700 r doses, six ionol derivatives (formulas given) in peach oil were administered intraperitoneally 5 to 15 min after irradiation. In some of the experimental series, cystemine was administered prior to irradiation. Findings show

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L 10424-67

ACC NR: AT6031775 O

that with 400 and 550 r doses the protective effect of the phenols is probably concealed by the protective effect of the peach oil, which is statistically reliable ($p < 0.05$). Not one of the phenol preparations displayed a statistically reliable radioprotective effect. However, when cystamine was administered prior to irradiation, the phenols did display a radioprotective effect. Thus, the phenol preparations appear capable of potentiating the effect of a radioprotector. Possibly, during irradiation cystamine prevents the formation of peroxides and radicals giving rise to chain reactions; this in turn promotes the manifestation of the radioprotective action of ionol derivatives, inhibiting the chain radical reactions taking place after irradiation. Orig. art. has: 2 tables.

SUB CODE: 06, 07/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 003

~~5(4)~~ 18.8300

67959
SOV/20-130-1-37/69

AUTHORS: Khua Kao-din, Shen' Sin-su, Iofa, Z. A., Mikhaylova, E. I.

TITLE: The Influence of the Halogen Ions on the Corrosion of Stainless Steel 18-8 in Sulphuric Acid

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 1, pp 129-132 (USSR)

ABSTRACT: S. M. Babitskiy and Kh. L. Zeytlin (Ref 2) established that the addition of small amounts of halogen salts considerably reduces the dissolution of stainless steel type 18-8 in sulphuric acid solution. This inhibiting effect of the halogen ions was studied among others by Z. A. Iofa et al. (Refs 4-7) with pure Fe. These research workers proved that the halogen ions are chemically adsorbed on the Fe-surface and that they form layers which retard the electrochemical reaction, especially the discharge of H-ions. These facts do not apply completely to the steel type 18-8 since above all the chlorine ions destroy the passivating film and therefore should accelerate the dissolution of steel in H_2SO_4. To explain the reaction of the halogen ions with stainless steel investigations were carried out at the two institutions mentioned in the Association. The results obtained in China on the rate of dissolution of steel type 18-8 in 10 n H_2SO_4 without

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The Influence of the Halogen Ions on the Corrosion of Stainless Steel 18-8 in Sulphuric Acid

further additions, and with additions of NaCl, KBr and KJ are given in figures 1 and 2. They show that the halogen ions retard the dissolution and that an optimum concentration exists for each halogen compound, in which this effect becomes the most strongly manifest (Table 1). The polarization curves taken at the Kafedra elektrokhimii (Chair for Electrochemistry) of the Soviet Association (Figs 3, 4) show that the chlorine ions compensate the passivation of steel and that the retardation of corrosion is solely the result of the high hydrogen overvoltage. In KBr and KJ, however, steel is passivated. When the concentration of KBr and KJ exceeds the optimum concentration these compounds have the same effect as NaCl, i.e. they prevent the passivation of steel. In KJ also a reduction of the H-overvoltage takes place. This reversal of the effect in KJ is explained by the formation of a layer of iodine anions on the metal. Table 2 gives the dissolution rate of steel in 10 n H_2SO_4. The results

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The Influence of the Halogen Ions on the Corrosion of Stainless Steel 18-8 in Sulphuric Acid

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obtained are important for the theory of passivation since they confirm the part played by the adsorption phenomena. The analysis is given for steel type 18-8 (in %): Ni 9.3, Cr 16.8, C 0.14, Si 0.25, Mn 0.84, Ti <0.05, S 0.019, P 0.013. There are 4 figures, 2 tables, and 12 references, 11 of which are Soviet.

4

ASSOCIATION: Institut prikladnoy khimii Akademii nauk KNR Chanchun' (Institute of Applied Chemistry of the Academy of Sciences of the Chinese People's Republic Chanchung) Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: July 30, 1959 by A. N. Frumkin, Academician

SUBMITTED: July 30, 1959

Card 3/3

MIKHAYLOVA, E.I.; IOFA, Z.A.

Effect of halogen anions and some organic compounds on the electrochemical behavior of nickel in acid solutions. Elektrokhimiia 1 no.1:107-110 Ja '65. (MIRA 18:5)

1. Moskovskiy gosudarstvennyy universitet.

12(7) SOV/122-59-7-3/19

AUTHOR: Sliozberg, S.K., Nekrasov, P.N., and Mikhaylova, E.N.

TITLE: Butt-Welded Seam with Low-Carbon Steel Laps

PERIODICAL: Avtomaticheskaya svarka, 1959, Nr 7, pp 17-20 (USSR)

ABSTRACT: The butt-welded seam with low-carbon steel laps has found an extensive application in joining metal sheets and bands, as well as in making thin-walled receptacles. In research conducted in 1957, low-carbon steel laps 1-4 mm thick were used. In 1958, a special machine for welding metal sheets up to 4 mm thick was constructed. For the purpose of welding according to this method, the laps have to be put on both sides of the sheets to be welded together. The clearance between the edges of the sheets should not be over 0,6 mm; it was established that with a clearance of over 0,6 mm the stability of the seam considerably decreases owing to diminishing of the contact area between the sheets. The steel laps have to be placed on both sides of the seam; it is insufficient to use only one lap, as in

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Butt-Welded Seam with Low-Carbon Steel Laps

this case the process of welding remains unaccomplished on the side where no lap was placed. The uniformity of heating of the sheet edges does not practically depend on the presence of the laps. Experience has shown that the heating effect does not depend on whether the laps were used. It is very important that the edges of the sheets to be welded together be straight and smooth. The quality of the seam, its stability and durability depend also on the parameters of the welding process: electric current, pressure on the rollers and the speed of welding. It has been established that if the welding with the steel laps is properly accomplished, the strength of the welded seam is superior to that of the base metal used. There are 5 graphs, 1 table, 2 photographs and 2 references, 1 of which is Soviet and 1 German

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ASSOCIATION: VNIIESO

SUBMITTED: March 2, 1959

S/063/60/005/006/008/014
A051/A026

AUTHORS: Mikhaylova, E.M.

TITLE: Scientific and Technical Conference on the Purification and Treatment of Water

PERIODICAL: Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D.I. Mendeleyeva, 1960, No. 6, Vol. 5, pp689-690

TEXT: In April 1959, in the city of Moscow, an All-Union Conference took place on the subject of desalting and distilling salt and brine-containing waters, called together by the Council of Problems of Water Supply of the AS USSR, the Intra-Administrative Committee of Arid Zones of the AS USSR, the Committee on High-Parameter Vapor, at the Power Engineering Institute of the AS USSR and the VNII VODGEO AS and A USSR. Over 150 specialists took part, working in research councils of the Azerbaydzhan and Turkmenian Republics, Sovkhozes and Cattle Administrations of Arid zones. Professor G.V. Bogomolov spoke on "The Water Resources of the Main Regions of Central Asia and the RSFSR, and the Possibilities of Supplying the Water Needs of the Population, Industry and Agriculture Through Distillation of Salt Waters". Professor S. M. Drachev and colleagues reported on the hygiene demands placed on degree of mineralization and the salt content of drinking water. Professor V.A. Klyachko

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Scientific and Technical Conference on the Purification and Treatment of Water

made a survey of the existing methods of water distillation and listed the calculations made of the cost of distilling sea water, at various productivity, with a uni- and five-body evaporation apparatus, vapor-compressor distillation apparatus, a simple construction and one with thermo-conductivity in a thin turbulent layer, natural freezing, helio-distillation, chemical and electrochemical desalting; whereby the most appropriate methods of sea water distillation were said to be the electrochemical and vapor-compression methods. I.Z. Makinskiy and P.P. Simonov (Azerbaydzhan Industrial Institute im. Azizbekov) reported on the schemes developed for the use of high-mineralized waters for processing distilled water at power stations. A. Yu. Dykhno spoke about experiences in using evaporators, fed by waters from the Caspian Sea (with a salt content of 15 g/l), at the TETs of the Krasnovodsk Oil Refinery. O.S. Lenchevskiy (VNII VODGEO) made a survey of the modern equipment for electrochemical desalting of water and the means for perfecting these apparatus. M.A. Orzherovskiy reported on the construction and experience in using the first industrial set-up in the USSR for electrochemical desalting of sea water on the boat "Tula". Professor Ye.B. Trostyanskiy dedicated his paper to the subject of ionite diaphragms and methods of their production. V.S. Titov

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reported on the applicability of the membrane equilibrium theory of Donnane to ionite diaphragms and the relationship of the specific electroconductivity, ionic semi-permeability and mechanical stability of ionic diaphragms, to the properties of the components of the membrane, their composition ratio and technology parameters. M.N. Gantman conducted investigations of the physico-chemical properties of ionite diaphragms of both Soviet and foreign make, which showed that the most suitable diaphragms among the Soviet-made ones are the anionite, reinforced diaphragms, made of the ЭДЭ-10 (EDE-10) resin and the cationite reinforced diaphragms of the СДВ-3 (SDV-3) resin. P.V. Krystin and I.V. Vol'f reported on their investigations on the simultaneous deoxygenating and desalting of water on electro-exchange filters. I.V. Vol'f and G.F. Pollak spoke on their practical application of the ionite methods for distilling bitter-salty waters of surface soil and deep-lying earths of Kazakhstan. A.I. Nevskaya and L.A. Shtukovskaya reported on the possibility and complete suitability of distilled ionites КУ-2 (KU-2) and EDE-10p, for drinking water needs. P.M. Brdlik and B,V. Petukhov spoke on the problems of using solar energy for water distillation. Both portable and stationary solar distilling apparatus have been developed in the USSR, with a working capacity of 1.8 to

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70.000 m of water per year. Ya.M. Pashenkov and Professor S.Yu. Geller reported on the distillation of mineralized water using the natural freezing method, based on the layer freezing of the mineralized water in the winter time in the form of powerful ice blocks, with their subsequent melting down during the spring and summer at a given thermal state ..... On the 24-27 of May 1960, a scientific research conference took place on water-treating equipment and the automation of chemical-purifying installations, called together by the Committee of High-Parameter Vapor at the ENIN AS USSR and the Moscow Administration of the Scientific Research Society of the Power Industry. About 200 specialists participated. Professor M.S. Shkrob summarized the results of investigations carried out in recent years for the improvement of methods of water treatment in high-pressure power stations. L.S. Gurevich and A.A. Krupchitskiy, G.K. Shuryshkina, I.I. Chuprin, S.M. Gurvich and A.P. Mamet formulated the main demands placed on modern water-treating equipment in powerful stations. V.M. Kvyatkovskiy and A.I. Baulin reported on the results of their work on lime additions and silicon removal from water in high pressure boilers. V.A. Klyachko made a survey of the methods for removing organic substances from water, for the protection against aging of the anionites, and

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reported on the results of experimental research of the VNII VODGEO on the development of the construction of illuminators for water purification from organic substances by coagulation. S.M. Gurvich and B.A. Konstantinova, and also V.K. Tikhonova spoke on the principles of automating the ion-exchange and illuminating filters. D.N. Smirnov reported on the automatic construction of lime measuring, developed at the VNII VODGEO. V.M. Kvvatkovskiy, A.G. Shchukin and G.V. Matskevich, K.G. Zeydel', D.P. Larionova discussed the practical aspects of automation. Yu.M. Kostrikin reviewed the principle questions of chemical control and the problems of automation. V.A. Korovin told about the developed flame-photometers at the VTI, for determining the concentration of sodium in drinking water, reversable condensate and boiler vapor of modern power stations. A.A. Mostofin reported on the registering and regulating pH-meters having antimony working electrodes. L.M. Zhivilova described the automatic indicator of water hardness..... Mention is made of the work of the special section, dedicated to the problems of using ozone for decontaminating and illuminating water. T.P. Bogdanova and M.A. Gubar' reported on the results of investigations on the use of ozone, as a means for decontaminating water from bacterii spore. L.A. Kul'skiy and M.A. Shevchenko reported on the ozoni-

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fication of water which insures an effective decoloration, and improves the taste in many types of waters containing different mineral and organic matter, also the pH and temperature. Yu.A. Bardin and Ye.S. Shalashova, T.A. Dmitriyev, I.A. Gusyev, Yu.B. Bagotskiy, etc., discussed the results of the experimental use of ozone in Moscow water-supply stations- the Stalinskiy and the Severnyy. L.A. Kul'skiy and I.T. Goronovskiy, etc., reported on the IONKh AS Ukr.SSR-developed methods and apparatus for determining small concentrations of ozone. N.A. Matveyev gave two papers on the technology and apparatus of the industrial production of ozone. F.I. Kuperberg (LNII AKKh) told about the results of the use of ozone in decontaminating water from the Neva river.

L 65194-65 EWT(m)/EWP(w)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)
ACCESSION NR: AP5020164 IJP(c) JD/HM/HW UR/0135/65/000/008/0029/0030
621.791:621.319.4:669.715

AUTHOR: Mikhaylova, E. M. (Engineer)

TITLE: Stored energy welding of transfer foil-coils to leads

SOURCE: Svarochnoye proizvodstvo, no. 8, 1965, 29-30

TOPIC TAGS: welding, stored energy welding, spot welding, aluminum foil, foil welding, metal welding

ABSTRACT: Leads of copper or nickel 0.05 mm thick, aluminum 0.1 mm thick, or silver-plated copper were spot welded to transformer coils made of anodized aluminum foil 0.02—0.06 mm thick and 3—10 mm wide. No soldering or brazing could have been used since the transformers operate at temperatures up to 500C. Welding was done in a stored energy spot welder with electrodes on opposite sides or on the same side of the weld. The latter arrangement was found to be much more practical. Prior to welding, the ends of the coils were pickled to remove the anodized layer. The tensile strength of the welds was 10—12 kg/mm^2; all specimens failed in aluminum foil. The welds were tested for thermal shock resistance (cooling to -60C then heating to +200C, holding for 1 hr, cooling to -60C holding for 1 hr, heating to 500C, and

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ACCESSION NR: AP5020164

holding 1 hr); resistance to vibrations at 10—2000 cps with acceleration of 10 g for 12 hr; operation in a vacuum 1 mm Hg for 30 min; and the effect of tropical conditions at 40C and 98% humidity for 2, 30, and 56 days. The thermal stability was tested at 200C for 1000 hr and at 500C for 500 hr. Stored energy welding ensured satisfactory weld performance under all test conditions. Orig. art. has: 3 figures and 3 tables. [AZ]

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE, MM

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4089

Joining of dissimilar metals

Card 2/2

KOZLOV, K.A.; MIKHAYLOVA, E.N.

Dehydrogenase activity of some soils in Eastern Siberia. Pochvovedenie no. 2:58-63 F '65 (MIRA 19:1)

1. Institut geografii Sibiri i Dal'nego Vostoka. Submitted June 4, 1963.

L 09176-67 EWT(1) GW

ACC NR: AP7002294 SOURCE CODE: UR/0020/66/168/004/0788/0791

AUTHOR: Mikhaylova, E. N.; Fel'zenbaum, A. I.; Shapiro, N. B. 21

ORG: Marine Hydrophysical Institute, AN UKRSSR (Morskoy gidrofizicheskiy institut AN UKRSSR)

TITLE: Computing steady-state sea and ocean currents

SOURCE: AN SSSR. Doklady, v. 168, no. 4, 1966, 788-791

TOPIC TAGS: ocean current, atmospheric wind, climatology

ABSTRACT:

The article cited below is a special case which is best understood against the background of material given by one of the authors, A. I. Fel'-zenbaum, in his book Teoreticheskiye Osnovy i Metody Rascheta Ustanovivshikhsya Morskikh Techeniy (Theoretical Principles and Methods of Computation of Steady-State Sea Currents). The authors consider the problem of determination of a steady-state current caused by the wind and climatological factors in a sea or ocean basin. Since the horizontal dimensions of the basin considerably exceed its depth, there is a singular boundary layer at the bottom of the basin. It therefore is possible to adopt the condition of hydrostatics and in the equations of horizontal motion there is allowance only for vertical exchange of momentum. A numerical solution of the prob-

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lem is given. For a simplification two cases are considered: a homogeneous liquid with allowance for the nonlinearity of the equation of motion and a nonhomogeneous liquid without this allowance made. The nonstationary problem can be solved easily by neglecting certain terms in the equations of horizontal motion. This article was presented by Academician L. I. Sedov on 28 July 1965. Orig. art. has: 19 formulas. [JPRS: 37,397]

SUB CODE: 08,04 / 26Jul65 / ORIG REF: 005

Card 2/2 net

EL'YANOV, M.D. Prinimala uchastiye MIKHAYLOVA, F.A.

[Stratigraphic dictionary of the Northeastern U.S.S.R.] Stratigraficheskii slovar' Severo-Vostoka SSSR. Magadan, Magadanskoe knizhnoe izd-vo, 1959. 166 p. (MIRA 16:3)
(Geology, Stratigraphic--Dictionaries)

MIKHAYLOVA, G.A.; ADAMSON, I.F., otv. za vyp.; MANVELOVA, Ye.S., red.

[Protective coatings for vessels in the brewing, wine making, and yeast industry] Zashchitnye pokrytiia emkostei v pivovarennoi, vinodel'cheskoi i drozhzhevoi promyshlennosti. Moskva, 1963. 15 p. (MIRA 16:9)

1. TSentral'nyy institut nauchno-tekhnicheskoy informatsii pishchevoy promyshlennosti.
(Protective coatings)
(Fermentation--Equipment and supplies)

SHAKIN, I.A.; YAKUBOVICH, F.F.; ADAMSON, N.F., otv. za vypusk; MIKHAYLOVA, G.A., otv. za vyp.; MANVELOVA, Ye.S., tekhn. red.

[Malted corn extract] Kukuruzno-solodovyi ekstrakt. Moskva, Tsentr. in-t nauchno-tekhn. informatsii pishchevoi promyshl., 1963. 20 p. (MIRA 17:3)

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S/570/60/000/017/004/012
E032/E114

AUTHORS: Borodina, S.V., Kalinin, Yu.K., Mikhaylova, G.A., and Fligel', D.S.

TITLE: A review of the present state of research into the propagation of ultra-long electromagnetic waves

SOURCE: Akademiya nauk SSSR. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln. Trudy, no.17(27). Moscow, 1960. Rasprostraneniye radiovoln i ionosfera. 130-172

TEXT: Long and ultra-long electromagnetic waves are defined as those with wavelengths between 3 - 5 and some tens of thousands of kilometres. Part I of this paper is concerned with a review of the theory of propagation of ultra-long radio waves, beginning with G.N. Watson's paper (Ref.1: The transmission of electric waves round the earth. Proc. Roy. Soc., v.95, 546, 1919). It is indicated how the various equations formulated to describe the propagation of electromagnetic waves in the earth—uniform-ionospheric wave-guide can be evaluated. This is followed by a summary of the methods which can be used to take into account the

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A review of the present state of ...

finite conductivity and the spherical shape of the earth. A review is then given of attempts at the synthesis of atmospherics, among them the theories of Fligel' (present Symposium, 27-49) and J.R. Wait (Ref.18: The propagation on very low frequencies to great distances. NBS Report v.5513, September 3, 1957).
Part II is concerned with the experimental studies of the propagation of long and ultra-long radio waves. Experimental work on the amplitude and phase of these waves as functions of distance and time is summarised. Direct measurements of the field-strength and the diurnal variations in the propagation of the GBR signal are reviewed. An account is also given of the results obtained by indirect methods, e.g. lightning discharges, analysis of the spectrum of atmospherics by the tuned receiver method and studies of the tails of atmospherics. It is concluded that the experimental study of the propagation of long and ultra-long radio waves has confirmed the basic idea of the wave-guide theory of propagation. Direct measurement of the field-strength at 3000 km from the source showed that interference effects are present up to r = 1000-2000 km and are due to the large number of modes taking

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part in the propagation. As the distance increases some of the modes are attenuated and the field amplitude falls off exponentially but remains relatively large. Direct measurements of the frequency stability of the GBR signal showed that the daytime stability at r = 5000 km is 10^{-9} over a period of several months and 10^{-10} over a day or two. At the antipodes, the frequency stability is of the order of 10^{-9} per hour. Indirect measurements confirm the results of direct field measurements but in a wider frequency range, namely, 500 cps - 50 kc/s. Analysis of the waveform of atmospherics showed that the wave-guide formed by the earth and the finite-conductivity ionosphere has certain selective properties. At 7 - 15 kc/s and 100-200 c.p.s. there is energy transmission with minimum attenuation. At 2 - 3 kc/s there is maximum absorption. The attenuation at 10 kc/s is greater by 10 db than at 2 - 3 kc/s. The ratio of the maxima in the spectrum of atmospherics on 10 kc/s and 100 c.p.s. varies with distance. At 500 km the maximum on 10 kc/s is 20 - 30% larger than on 100 c.p.s., while at 2000 km this difference disappears altogether. The signal level on 7 - 15 kc/s is subject to appreciable diurnal

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and seasonal variations. During daytime the signal level is lower than at night; during summer it is higher than in winter. The spectral region 40 - 200 c.p.s. exhibits small diurnal variations showing good propagation conditions both during daytime and at night. However, it appears that the difficulties encountered in the design of transmitting antennas on these frequencies cannot be overcome. The phase velocity in the frequency range 1 - 20 kc/s varies irregularly in the neighbourhood of c. In the frequency range 10 - 20 kc/s, the average phase velocity is practically independent of frequency and differs from c by fractions of a percent. As the frequency is reduced the phase velocity becomes appreciably greater than c, for example, at 2 kc/s the phase velocity differs by 10% from c. As the distance is increased from 1000 to 3000 km, the differences from c are appreciably reduced and are equal to a few tenths of a percent. The effective parameters of the lower ionosphere have been determined for larger distances where the zero mode predominates. The experimental values obtained for the ratio of the electron concentration to the collision frequency are found to be in good agreement with the theory of Ya.L. Al'pert and S.V. Borodina (Ref.19; present

Symposium, 3-26) right down to 3 - 4 kc/s. Thus, direct and indirect studies have shown the propagation of ultra-long radio waves to distances of 3000 to 5000 km as relatively stable during daytime but somewhat less stable at night. The propagation of radio waves with frequencies below 1 kc/s has not as yet been adequately studied either theoretically or experimentally. Direct measurements of the phase velocity as a function of distance and of the effect of the earth's magnetic field on the propagation of ultra-long radio waves is of major practical interest. It is stated that there are no published results in this field.

Acknowledgments are expressed to Ya.L. Al'pert for advice and to Yu.G. Ishchuk and G.M. Sosnovskaya for assistance during the writing of this paper.

There are 23 figures, 5 tables and 107 references: 10 Soviet-bloc, 1 Russian translation from a non-Soviet-bloc publication , and 96 non-Soviet-bloc. The four most recent English language references read as follows:

Ref.71: A.D. Watt, B.L. Maxwell. Observations on some low-frequency propagation paths in arctic areas. Trans. IRE v.AP-6, no.3, 308, 1958.

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S/570/60/000/017/004/012
E032/E114

A review of the present state of ...

Ref.83: J. Tantry. Automatic atmospherics-waveform recorder. Indian J. Phys., v.32, 367, 1958.
Ref.84: J. Chapman. The waveforms of atmospherics and the propagation of very low frequency radio waves. J. Atm. Terr. Phys., v.11, no.3/4, 223, 1957.
Ref.101: F. Hepburn. Atmospherics with very low frequency components below 1 kc/s. J. Atm. Terr. Phys., v.10, 266, 1957.

4

Card 6/6

69410

9,9100

S/141/60/003/01/001/020
E032/E414

AUTHORS: Borodina, S.V., Kalinin, Yu.K., Mikhaylova, G.A. and Fligel', D.S.

TITLE: A Review of the Present State of Research into the Propagation of Very Low Frequency Electromagnetic Waves

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1960, Vol 3, Nr 1, pp 5-32 (USSR)

ABSTRACT: This is a review paper treating both theoretical and experimental problems. In the first part a review is given of calculations on the propagation of electromagnetic waves taking into account irregularities in the ionosphere, the finite conductivity and the spheroidicity of the earth. In the second part a review is given of experimental studies in the frequency range 10 cps to 50 Kc/s. Above 3 Kc/s there is good agreement between experimental and theoretical data. It is pointed out that it is necessary to develop a general theory of propagation of very low frequency electromagnetic waves taking into account both the spheroidicity and the finite

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A Review of the Present State of Research into the Propagation of Very Low Frequency Electromagnetic Waves

conductivity of the earth, particularly above 3 kc/s. The review is based on 109 published papers. Acknowledgement is made to Ya.L.Al'pert, Yu.G.Ishchuk and G.M.Sosnovskaya for their help. There are 14 figures, and 2 tables and 109 references, 11 of which are Soviet and 98 Western.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestial Magnetism, Ionosphere and the Propagation of Radio Waves, AS USSR)

SUBMITTED: September 19, 1959

Card 2/2

BELYANSKIY, V.B.; MIKHAYLOVA, G.A.

Investigating the properties of atmospherics in the ultralow frequency range (under 1 kHz). Geomag. i aer. 1 no.3:379-386 My-Je '61. (MIRA 14:9)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

(Ionosphere)

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S/203/62/002/002/005/017
I046/I246

AUTHOR: Mikhaylova, G. A.

TITLE: Atmospheric spectra and phase velocity of electromagnetic waves at ultralow frequencies

PERIODICAL: Geomagnetizm i aeronomiya, v. 2, no. 2, 1962, 257-266

TEXT: Thirty-seven atmospheric in the 60 cycles–30 kilocycles range recorded in the daytime at distance of 1000 to 6000 km from the source were analyzed on a mechanical harmonic analyzer (resolution into up to 100 harmonics) to obtain their amplitude spectra and the phase velocities of the electromagnetic waves near the surface of the earth. The amplitude spectra have two maxima which shift (a) from 5 to 10 kilocycles, and (b) from 200 to 70 cycles, respectively, when the distance to the source is increased from 1000 to 6000 km. The ratio of the two maxima varies from 0 3 at r = 1000 km to 1.5 at r = 6000 km. For frequencies higher than 4 kilocycles, the experimental phase velocities are in good agreement with theoretical results for the plane earth-ionosphere waveguide The considerable divergence for the lower frequencies remains unexplained; it can hardly be due to the failure to take the true spherical shape of the earth into account There are 6 figures and 4 tables.

ASSOCIATION: IZMIRAN

SUBMITTED: December 26, 1961

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AID Nr. 972-1 21 May

МИХАЙЛОВА Г. А.

PHASE VELOCITY OF ELECTROMAGNETIC WAVES IN THE FREQUENCY RANGE FROM 1 TO 25 kc (USSR)

Mikhaylova, G. A., and T. I. Kurakina. Geomagnetizm i aeronomiya, v. 3, no. 2, 223-226. S/203/63/003/002/004/027

The average phase velocity of electromagnetic waves produced by atmospherics was investigated during the period of March-June 1962. Experiments were carried out simultaneously at the Institute of Terrestrial Magnetism and Radio Wave Propagation, Academy of Sciences (IZMIRAN) USSR (Moscow), and the Main Geophysical Observatory (Leningrad). The atmospherics recorder installed at IZMIRAN had a frequency response from 50 cps to 60 kc, while the frequency response of the recorder used at the Main Geophysical Observatory was from 20 cps to 200 kc. Immediately after the reception of each atmospheric, a pulse produced by the time base of the IZMIRAN recorder was delivered by direct line to a synchronizing transmitter of a radio direction-finder network, and a short pulse was transmitted and received instantly at radio direction-finder points in Murmansk, Minsk, Moscow, Kiyev, and Rostov on the

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PHASE VELOCITY [Cont'd] S/203/63/003/002/004/027

Don, where the directions of the arriving atmospheric were visually recorded. In Leningrad and Moscow the form of the arriving atmospheric was recorded simultaneously. As was demonstrated by the observations, in the majority of cases the signals recorded at these two points corresponded to the same lightning discharge. Average phase velocities of electromagnetic waves in the frequency range of 1-25 kc were determined by harmonic analysis of the atmospherics. Eleven pairs of atmospherics were recorded in Moscow and Leningrad simultaneously during day hours from distances greater than 1000 km.

AID Nr. 972-1 21 May

PHASE VELOCITY [Cont'd]

S/203/63/003/002/004/027

The experimental and theoretical values of the $\bar{v}/c$ ratios as a function of frequency are shown in the table below. These values were obtained from the analysis of the plane model of the ionosphere.

f, kc	1-3.5	4-6	7-9	10-15	17-20	22-25
f average, kc	2.25	5	8	12.5	18.5	23.5
$\left(\frac{\bar{v}}{c}\right)_{exp.}$	1.005	1.03	1.008	1.005	1.002	1.001
$\left(\frac{\bar{v}}{c}\right)_{theor.}$	1.014	1.017	1.0085	1.0041	1.0015	----

[KM]

Card 3/3

SHVYRYAYEVA, K.M.; MIKHAYLOVA, G.A.

Interpretation of indicatory geobotanical maps in the northern Caspian Sea region. Trudy MOIP 8:220-231 '64.
(MIRA 17:12)

L 27194-65 EWT(d)/EWT(l)/EEC(k)-2/EWG(v)/EEC-4/T/EEC(b)-2 Pn-4/Pe-5/Pg-4/Pt-10/
ACCESSION NR: AP5005201 Pl-4 GG/GM/WS S/0203/65/005/001/0179/0183

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46
B

AUTHOR: Mikhaylova, G. A.

TITLE: Amplitude and phase spectra of near atmospherics in the 2—30-kc range

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 1, 1965, 179-183

TOPIC TAGS: atmospheric, spectral amplitude, phase spectrum, lightning discharge, VLF wave propagation, atmospheric reception

ABSTRACT: An investigation was made of the amplitude and phase characteristics of atmospherics observed at distances of 50—300 km from a lightning source. The receiving antenna was the 10-m vertical rod type, which ensured the reception of the vertical component of the signal field. The receiving equipment included a wideband amplifier and an oscillograph fitted with a continuous-action camera attachment. The frequency characteristic of the amplifier was flat, ±2 db in the 50—100-cps range; its phase characteristic was linear. A delay line of 100 μsec permitted signal registration without distortion of the leading edge. Signals registered at a distance of 100 km had positive polarity and durations of 100 to 150 μsec (in 70—80% of the cases). Signal duration increased with distance to

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ACCESSION NR: AP5005201

300 km, and an oscillatory component could be observed. The mean spectral amplitude (expressed in relative units) of 18 atmospherics registered at 100 ±20 km in the daytime during the summer showed a maximum at 6 kc; spectral width at the 3 db points was 3—10 kc. The spread of phase values at 1—10 kc was $\varphi = \pm 50°$; above 10 kc, the divergence was higher. Orig. art. has: 5 figures. [DW]

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, the Ionosphere and Radio Wave Propagation, AN SSSR)

SUBMITTED: 29Jun64 ENCL: 00 SUB CODE: EC, ES

NO REF SOV: 004 OTHER: 005 ATD PRESS: 3191

Card 2/2

MIKHAYLOVA, G.A.

Amplitude and phase spectra of close atmospherics in the 2-30 kc range. Geomag. i aer. 5 no.1:179-183 Ja-F '65.

Propagation function and mean phase velocity of electromagnetic waves at ultralow frequencies. Ibid.:183-186

(MIRA 18:4)

1. Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR.

L 26115-65 EWT(d)/EWT(l)/EEC(k)-2/EWG(v)/EEC-4/EEC(b)-2 Pn-4/Pe-5/
Pg-4/Pt-10/Pl-4 GG/GW/WS

ACCESSION NR: AP5005202 S/0203/65/005/001/0183/0186

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B

AUTHOR: Mikhaylova, G. A.

TITLE: Propagation functions and average phase velocities of electromagnetic waves at very low frequencies

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 1, 1965, 183-186

TOPIC TAGS: atmospheric, vlf wave propagation, atmospheric phase velocity, atmospheric reception

ABSTRACT: Spectra and average phase velocities of atmospherics near the Earth's surface within the range of 60 cps to 30 kc and distances of 1000—6000 km were studied. Observations were carried out over a period of several years at Krasnaya Pakhra between 0040 and 0100 hours Moscow time. Analysis of the received signals showed a multiplicity of shapes, similar to those observed in an earlier study by day; 78% of the atmospherics were hf-superimposed damped signals of oscillatory shape. The propagation function of these signals approaching from the west and southwest of the point of observation at distances of 1000—4000 km were obtained by harmonic analysis. For all distances, the frequency values of spectrum maxima

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ACCESSION NR: AP5005202

were almost identical, averaging 8 kc. The lf maximum was located at 100—200 cps. Average relative spectra for signals in the 2—30-kc range are presented in Fig. 1 of the Enclosure. In computing the average phase velocity, the phase spectrum of every atmospheric was analyzed and adjusted to the zero phase value at 30 kc. Average phase velocities for 50% of the signals observed are presented in Table 1. Orig. art. has: 3 figures and 2 tables. [KM]

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln Akademii nauk SSSR (Institute of Terrestrial Magnetism, the Ionosphere, and Radio Wave Propagation of the Academy of Sciences, SSSR)

SUBMITTED: 29Jun64 ENCL: 02 SUB CODE: EM

NO REF SOV: 005 OTHER: 000 ATD PRESS: 3186

Card 2/4

MIKHAYLOVA, G. D.

MIKHAYLOVA, G. D. -- "Effect of Boric Fertilizers on the Harvest and Quality of Flax under Conditions Prevailing in the Latvian SSR." Latvian Agricultural Academy, 1951 (Dissertation for the Degree of Candidate of Agricultural Sciences)

SO: Izvestiya Ak. Nauk Latviyskoy SSR, No. 9, Sept., 1955